



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,138	02/08/2001	Hirokazu Fujino	0020-4783P	5320

2292 7590 01/27/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

LEO, LEONARD R

ART UNIT	PAPER NUMBER
----------	--------------

3743

DATE MAILED: 01/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,138

Applicant(s)

FUJINO ET AL.

Examiner

Leonard R. Leo

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION***Election/Restrictions***

Applicant's election with traverse of the species of Figure 8 in Paper No. 15 is acknowledged. The traversal is on the ground(s) that a search and examination of all species has been made. This is not found persuasive because the species are mutually exclusive and capable of supporting separate patents. The species will be rejoined when generic subject matter becomes allowable. Regarding the restriction of different statutory classes of invention, 35 USC 371 prohibits the restriction between a product, a method of making the product and an apparatus for making the product.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

Claims 5-7 and 9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification, as originally filed, fails to provide an adequate written description of the invention. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "symmetric" in claims 5-7 and 9 are used by the claim to mean "a series of repeating regions," while the accepted meaning is "correspondence of form and arrangement of parts on opposite sides of a boundary." There appears to be no line of symmetry (i.e. boundary) where the angles and widths of groove rows are the same.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (JP 11-000713)(Figure 2, middle embodiment) in view of Schuez et al.

Yamamoto et al (JP 11-000713) discloses all the claimed limitations except secondary grooves on the projected portions.

Schuez et al discloses a heat-transfer pipe comprising a plurality of grooves 3 and projection portions 2 having a plurality of secondary grooves 5 (Figures 6a-6e) for the purpose of improving heat exchange.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ishikawa et al (10-47880) secondary grooves for the purpose of improving heat exchange as recognized by Schuez et al.

Regarding claims 6-7, the similar structured device of the combination of Yamamoto et al (JP 11-000713) and Takashi et al (11-90530) is believed to be manufactured in a manner similar and similar apparatus as applicants' instant invention as claimed. Figure 1 of Yamamoto et al (JP 11-000713) is particularly pertinent.

Response to Arguments

The rejections in view of Ishikawa et al (10-47880), Takashi et al (11-90530) and Shikazono et al are withdrawn.

The rejection under 35 USC 112, first paragraph is maintained. The Examiner acknowledges applicants' disclosure of "symmetry." However, if a line of symmetry was defined along the midsection of region C, then portions of region C lying on opposite sides of the line of symmetry would not be symmetrical. The best example of symmetry is by placing a mirror along a "line of symmetry." In this respect, the angle of the grooves in the row is maintained with the groove row width. A line of symmetry exists between adjacent groove rows, except that the groove rows are of different widths.

It is suggested the claims recite a series or sequence of first and second groove rows or recite relative groove row angles and spacing to further define the "symmetry."

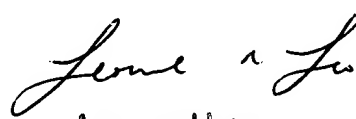
Yamamoto et al (JP 11-000713)(Figure 2, middle embodiment) best illustrates a line of symmetry (vertically) through the center of the roller, where the 3 rows on the left side are a mirror of the right side.

No further comments are deemed necessary at this time.

Conclusion

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648.

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.


Leonard Leo
Primary Examiner

January 23, 2003